

Silicone Heat Transfer Compound



860

- High thermal conductivity
- High dielectric constant
- High dissipation factor
- Use with heat sinks or metal chassis
- Will not dry or harden
- Contains zincs oxides and polydimethyl siloxane
- Meets MIL-DTL-47113D
- [Non-silicone](#) version available

Designed for use in transferring heat away from electrical and electronic devices such as; transistors, power diodes, semi-conductors, ballast's and thermocouple wells. High thermal conductivity, high dielectric constant, high dissipation factor, use with heat sinks or metal chassis, will not dry or harden. Contains zinc oxide and polydimethyl siloxane.

Specifications

Physical Properties	Test Method	Non Silicone 8610	Silicone 860
Appearance	Visual	Off white / smooth paste	White paste
Consistency	ASTM D 217	310-320	
Specific Gravity @ 25°C (77°F)		2.5 min	2.3 min
Bleed % 24 hours @ 200°C	FTM-321	1.0% max	2.0% max
Bleed % 24 hours @ 200°C	FTM-321	1.0% max	2.0% max
Evaporation 24 hours @ 200°C	ASTM D-566	> 500°F (260°C)	
Max. operating temp.		200°C	200°C (consistent) 300°C intermittent
Electrical Properties	Test Method	Non Silicone 8610	Silicone 860
Thermal Conductivity	Hot Wire Method Heat Flow #36 °C	0.773 W/m•K	0.657 W/m•K
Dielectric Strength (0.05I gap)	ASTM D-149	350 V/MIL	400 V/MIL
Dielectric Constant @ 1000 Hz	ASTM D- 150	4.4	3.81
Dissipation Factor @ 1000 Hz	ASTM D 150	0.0021	0.0032
Resistivity @ 21°C	ASTM D 150	6.38 x 10 ¹³ Ohm/cm	1.5 x 10 ¹⁵ Ohm/cm



Available Sizes

Catalog Number	Sizes Available	Description
860-4G	4g x 100	Pail of 100 singles
860-60G	60g (2 oz)	Jar
860-150G	150g (5 oz)	Tube
860-1P	1 pint (2.5 lbs)	Tub



Material Safety Data Sheet

Section 1: Product Identification

MSDS Code: 860 **Name: Silicone Heat Transfer Compound**

Related Part Numbers: 860-4G; 860-60G; 860-150G; 860-1P

Use: For improving thermal connections.

Section 2: Hazardous Ingredients

CAS#	Chemical Name	Percentage by weight	ACGIH TWA	Osha PeI	Osha Stel
1314-13-2	Zinc oxide	65 - 80	10mg/m ³	5mg/m ³	N/e
112945-52-5	Methylpolysiloxane	0.5-5	10mg/kg ³	N/e	N/e

Section 3: Hazards Identification

WHMIS Codes: D2B

NFPA Ratings: Health 1 Flammability 0 Reactivity 0

HMIS Ratings: Health 1 Flammability 0 Reactivity 0

Eyes: Causes moderate eye irritation.

Skin: May cause mild skin irritation.

Inhalation: Possible dust hazard if particles are separated from the polymeric matrix.

Ingestion: None known

Chronic: None known

Section 4: First Aid Measure

Eyes: Remove contact lenses. Flush with water or saline for 20 minutes. Get medical aid if irritation persists.

Skin: Wash skin with large quantities of soap and water.

Inhalation: Move person to fresh air.

Ingestion: Rinse mouth with water several times.

Section 5: Fire Fighting Measures

Autoignition Temperature: N/e **Flash Point:** 260°C **LEL / UEL:** N/a

Extinguishing Media: All standard extinguishing media.

General Information: Will burn if involved in a fire.

Section 6: Accidental Release Measures

Spill Procedure: Wipe, scrape, or soak up in an inert material. Wash spill area with soap and water.

Section 7: Handling and Storage

Handling: Wash thoroughly after handling. Avoid contact with eyes.

Storage: Store in a cool, dry, well-ventilated area, away from incompatible substances. Keep container closed.

Section 8: Exposure Controls

Routes of entry: Eyes, ingestion, inhalation, and skin.

Ventilation: Not required.

Personal Protection: Wear appropriate protective eyeglasses or chemical safety goggles. Wear appropriate protective clothing to prevent skin contact.

Section 9: Physical and Chemical Properties

Physical State:	Paste	Odor:	Odorless	Solubility:	Insoluble	Evaporation Rate:	N/a
Boiling Point:	300°C	Specific Gravity:	2.4	Vapor Pressure:	N/a	Vapor Density:	N/a
						pH:	N/a

Section 10: Stability and Reactivity

Stability: Stable at normal temperatures and pressures.

Conditions to avoid: Incompatible substances.

Incompatibilities: Oxidizing agents

Polymerization: Will not occur.

Decomposition: Carbon monoxide, carbon dioxide, silicone dioxide, formaldehyde

Section 11: Toxicological Information

Sensitization: (effects of repeated exposure) Not known to.

Carcinogenicity: (risk of cancer) The ingredients of this product are not classified as being carcinogenic by ACGIH (American Conference of Governmental industrial Hygienists) or IARC (International Agency for Research on Cancer), not regulated as carcinogens by OSHA (Occupational Safety and Health Administration), and not listed as carcinogens by NTP (National Toxicology Program)

Teratogenicity: (risk of malformation in an unborn fetus) No

Reproductive Toxicity: (risk of sterility) No

Mutagenicity: (risk of heritable genetic effects) No

Lethal Exposure Concentrations:	Ingestion (LD50):	N/e	Inhalation (LC50):	N/e	Skin (LD50):	N/e
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Section 12: Ecological Information

General Information: Avoid runoff into storms and sewers, which lead into waterways. Water runoff can cause environmental damage.

Environmental Impact Data: (percentage by weight)

CFC: 0

HFC: 0

Cl.Solv: 0

VOC: 0

HCFC: 0

ODP: 0

Section 13: Disposal Information

General Information: Dispose of in accordance with all local, provincial, state, and federal regulations. Water runoff can cause environmental damage.

Section 14: Transportation Information

Ground:

Not regulated.

Air:

Not regulated.

Sea:

Not regulated.

Section 15: Regulatory Information

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by the Controlled Products Regulations.

SARA (Superfund Amendments and Reauthorization Act of 1986, USA, 40 CFR 372.4)

This Product contains Zinc CAS# 1314-13-2 which is subject to the reporting requirements.

EPCRA (Emergency Planning and Right to Know Act, USA, 40 CFR 372.45)

This product contains Zinc CAS# 1314-13-2 a toxic chemical subject to the reporting requirements of section 313 Title III of the SARA of 1986 and 40 CFR part 372.

TSCA (Toxic Substances Control Act of 1976, USA)

All substances are TSCA listed.

CAA (Clean Air Act, USA)

This product does not contain any class 1 ozone depleting substances.

This product does not contain any class 2 ozone depleting substances.

This product does not contain any chemicals listed as hazardous air pollutants.

California Proposition 65 (Chemicals known to cause cancer or reproductive toxicity, May 1, 1997 revision, USA)

This product does not contain any chemicals listed.

Health Canada

Labeling and containers used in this product are listed in compliance with Consumer Chemicals and Containers Regulations.

Environment Canada

Chemicals in this product are listed on the Domestic Substances List in the Canadian Environmental Protection Act

This product does not contain any ozone depleting substances.

Industry and Science Canada

Labeling, product identity, net quantity declaration, minimum printing type size heights, and packaging of this product is in compliance with the Consumer Packaging and Labeling Act and Regulations. This product is not slack filled in accordance with chapter 4 prohibitions.